GROWTH AND COMPOSITION OF CURLED MALLOW, 
MALVA CRISPA

WITHIN recent years a number of inquiries have been received concerning the possible forage value of a certain plant belonging to the mallow family. This plant has been claimed to be a hybrid between the hollyhock, Althaea rosea Cav., and the common mallow or "cheeses", Malva rotundifolia L., or some other plant, supposedly a "secret". It has also been exploited as a "new crop" with marvelous possibilities as a forage plant especially for goats and dairy cows. Whenever specimens of the plant in question were available for determination, they proved to be the curled mallow, Malva crispa L., an adventive from Europe. The curled mallow has been in the northeastern United States for a long time, having at times been grown for the ornamental effect of its curled or ruffled leaves. Occasionally it escapes and becomes a weed.

Because of the interest in the curled mallow and the claims made for it, it was decided to obtain some data regarding its habit of growth, yield, and composition. Seed was obtained from two sources in New York State, from samples of plants submitted for determination to the senior author in 1941. Part of the seed was planted in flats in a greenhouse and the seedlings were transplanted to the field May 20, 1942, when they were about 4 inches high. The rest of the seed was planted directly in the field with a hand seed drill May 1, 1942. The field was located on a well-drained sandy loam at Ithaca, N. Y. A commercial fertilizer (5-10-5) was drilled on the soil at the rates of 250 pounds, and 750 pounds per acre, 6 days before the seed was planted.

The plants were set 15 inches apart in the rows which were 3 feet apart. Those from the drilled seed were thinned out to the same distance. The plants were cultivated twice with a horse cultivator and at the same time they were hoed and weeded within the rows.

The plants made a rapid growth and reached maturity in the transplants about 20 days before those grown from seed sown directly in the field. The final total growth, both in size and weight, was very similar for the plants whether they came from drilled seed or greenhouse transplants. The general appearance, vigor, and total yield of the plants showed no significant difference on the soil with light or heavy application of fertilizer. Fig. 1 shows the general habit of growth of the curled mallow plants as they appeared on August 25. These plants are about 8 feet high.

Curled mallow is a rapid grower with a main stem or leader bearing numerous short, leafy, axillary branches with numerous small flowers that set seed in abundance. The seed do not all ripen at the same time and some may shatter while new flowers are still appearing. When